



MILCOM 2002 MILITARY COMMUNICATIONS CONFERENCE

MG Steven Boutelle

Director, Information Operations, Networks and Space, Army CIO/G6

October 10, 2002



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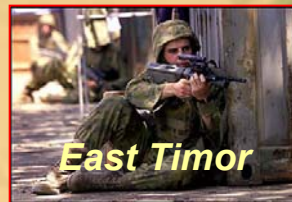
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Environment & Relevancy

“The greatest danger to freedom lies at the crossroads of radicalism and technology. When the spread of chemical, biological and nuclear weapons, along with ballistic missile technology - - when that occurs, each weak state and small group could attain the catastrophic power to attack great nations...

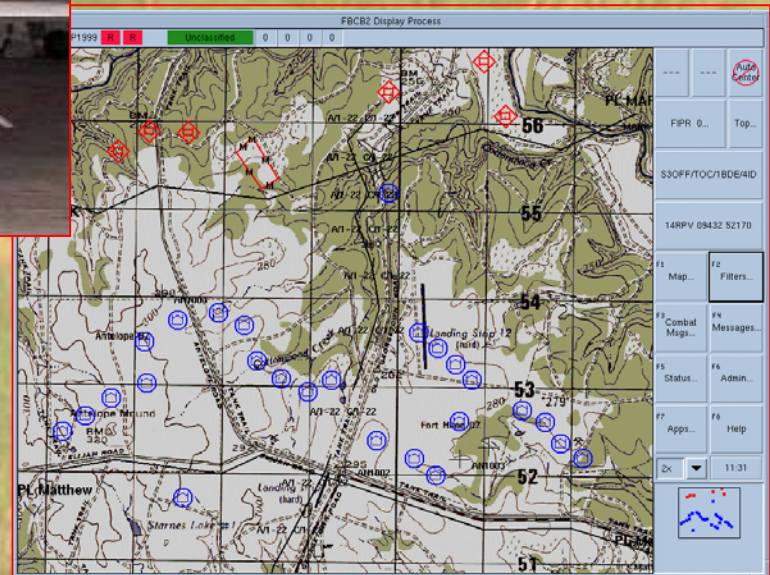
*George W. Bush
President of the United States
West Point, New York
June 1, 2002*



The Challenge

“Our response must take full advantage...innovation in the use of military forces, modern technologies, including the development of an effective missile defense system and increased emphasis on intelligence collection and analysis.”

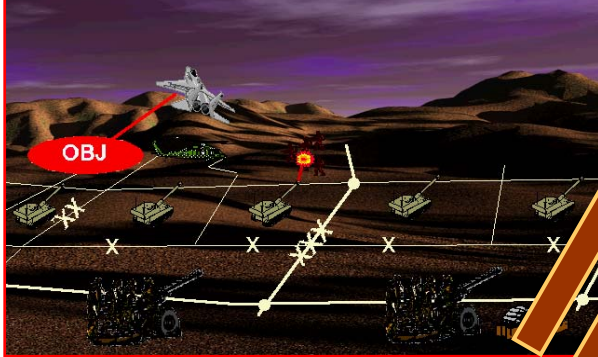
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Build better, more integrated intelligence capabilities to provide timely, accurate information on threats, wherever they may emerge

Transformation

Army Of Excellence (AOE) Division



Stryker



Future Combat System (FCS)



“Begin immediately to transform the entire Army... jumpstart process by *investing in today's off-the-shelf technology* to stimulate development of doctrine, organizational design and leader training as we search for new technologies for the objective force.”

CSA - 1999

Objective Force



The Four Critical Processes....

Data – Raw material

Information – Formed from Data

“...how you gather, manage and use information will determine whether you win or lose.”
-- Bill Gates



Knowledge – Extracted from Information

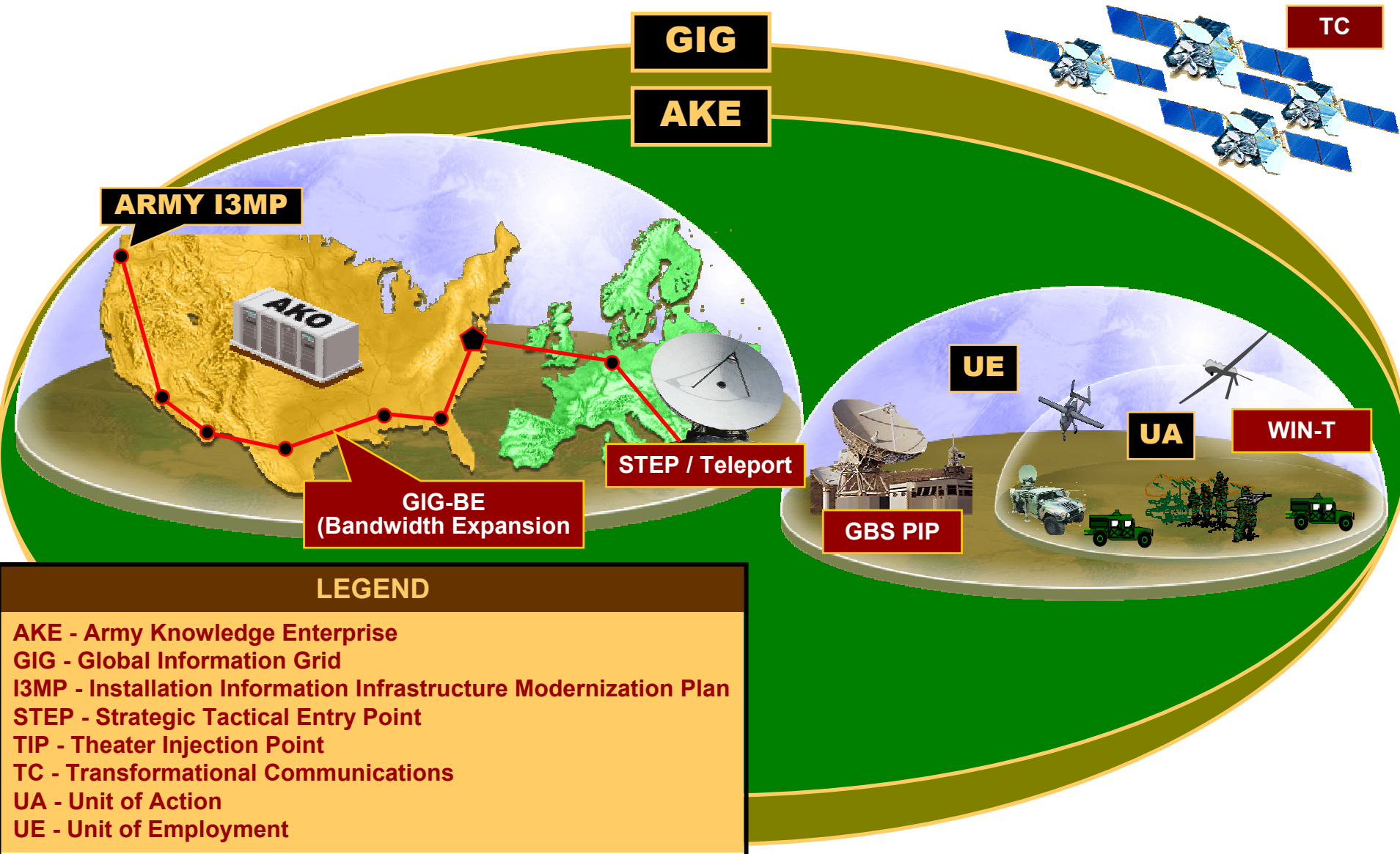
Information in itself does not ensure decision superiority.

Intelligent Action - Results from Knowledge

“An organization’s ability to learn and translate that learning into action rapidly is the ultimate competitive advantage.” -- Jack Welch



Transforming the Infostructure for the Objective Force



Army - Installation Information Infrastructure Modernization Program (I3MP)

Today

- Old Copper
- Analog, Aging Switches
- Limited Growth Ability

Includes Stryker Installations



Fixes the Last Mile at Installations



2003 - 2009

- Fiber or New Copper
- Latest Digital Switches
- Latest network equipment for high-speed data
- Upgrade Gateways to DISN/GIG-BE

**Funding:
\$3.2B (Army)**

- CONUS - Completed 22 of 95 Installations (95 funded in POM)
- EUCOM - Started 2 (Camp Ederle & Wiesbaden) of 118 (54 funded in POM)
- PACOM - Started 2 (Yongsan & Camp Red Cloud) of 50 (14 funded in POM)

Global Information Grid (GIG)

Bandwidth Expansion (CONUS/OCONUS)

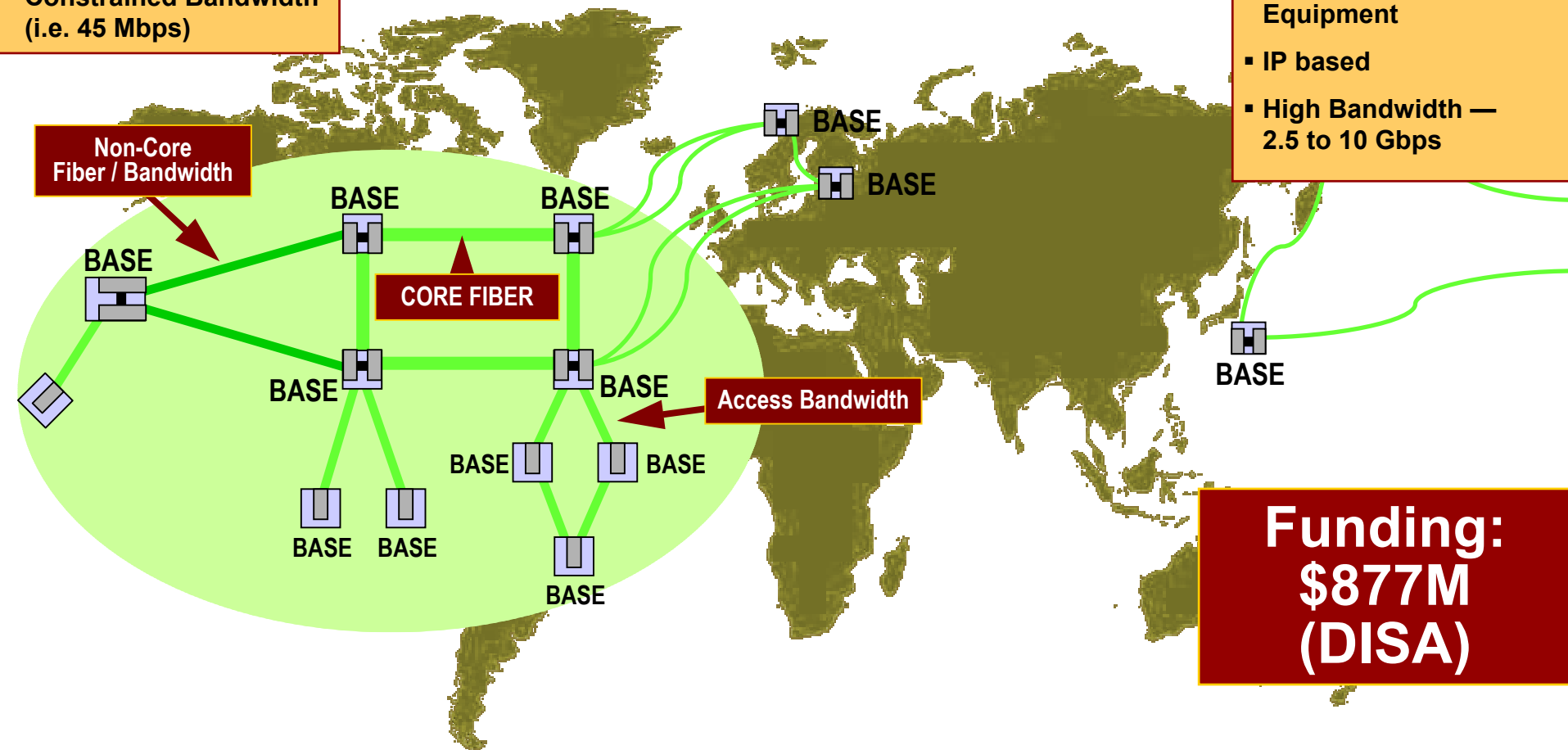
Today

- Multiple Carriers
- Single Points of failure
- Constrained Bandwidth (i.e. 45 Mbps)

Ultra-High Bandwidth to Key Access Points

2003-2004

- Physically Diverse Access
- Redundant Switching Equipment
- IP based
- High Bandwidth — 2.5 to 10 Gbps



Teleport

Today

STEP

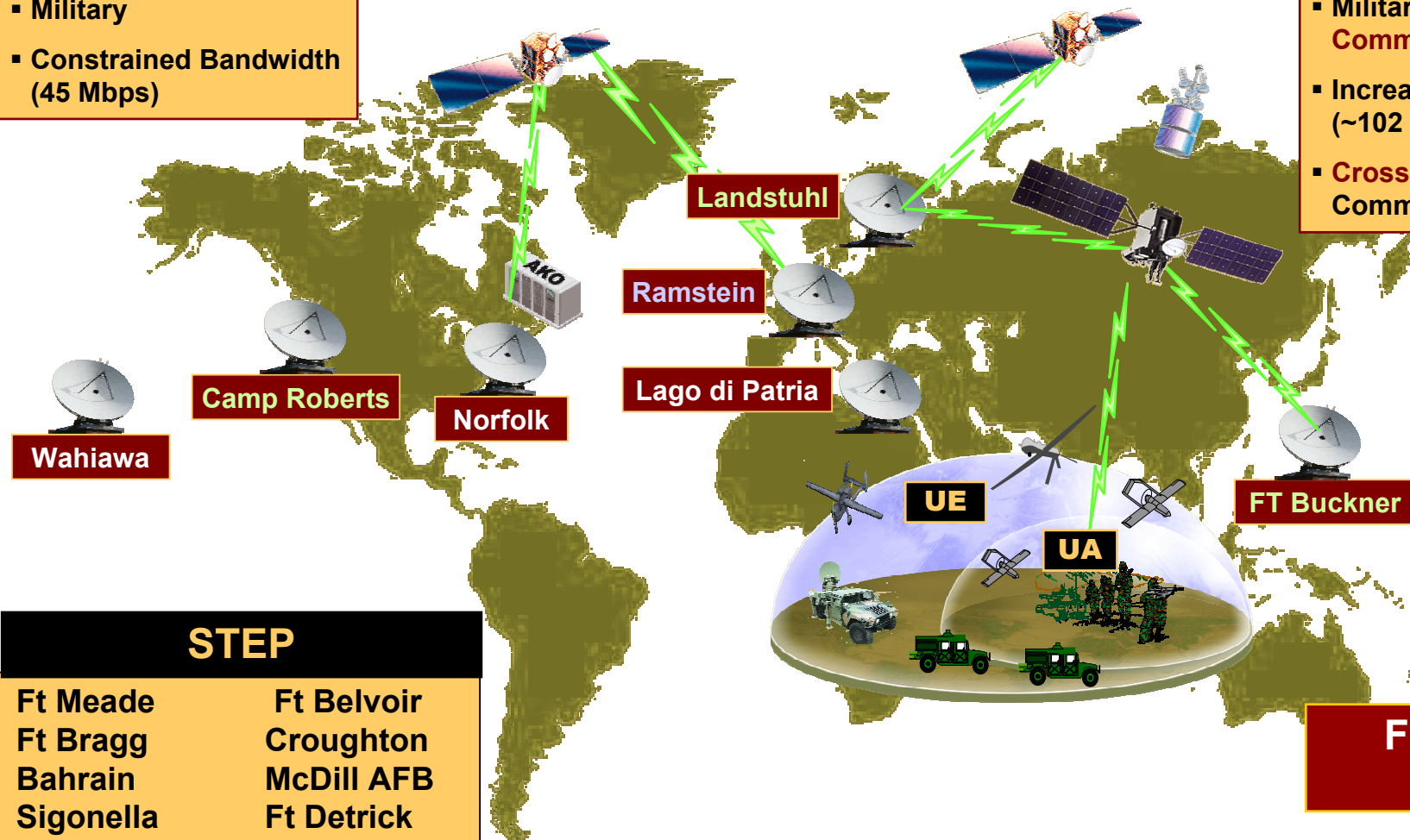
- Military
- Constrained Bandwidth (45 Mbps)

Global Access To the Warfighter

2003-2007

Teleport

- Military and **Commercial** Access
- Increased Bandwidth (~102 Mbps)
- **Crossbanding** Mil to Comm (via teleport)



STEP

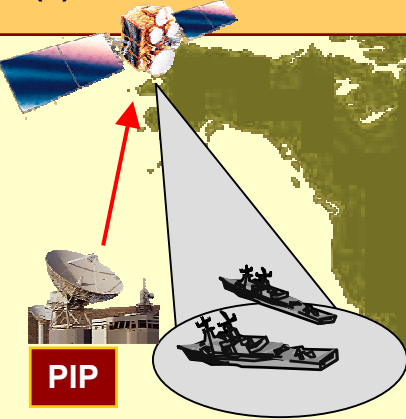
Ft Meade	Ft Belvoir
Ft Bragg	Croughton
Bahrain	McDill AFB
Sigonella	Ft Detrick

**Funding:
\$557M**

Global Broadcast Service (GBS)

Today

- Worldwide Satellite Capability
- All Primary Injection Point (PIP) Operational (3)



Continuous **High-Speed Data & Video** to the Warfighter – **GLOBALLY!**

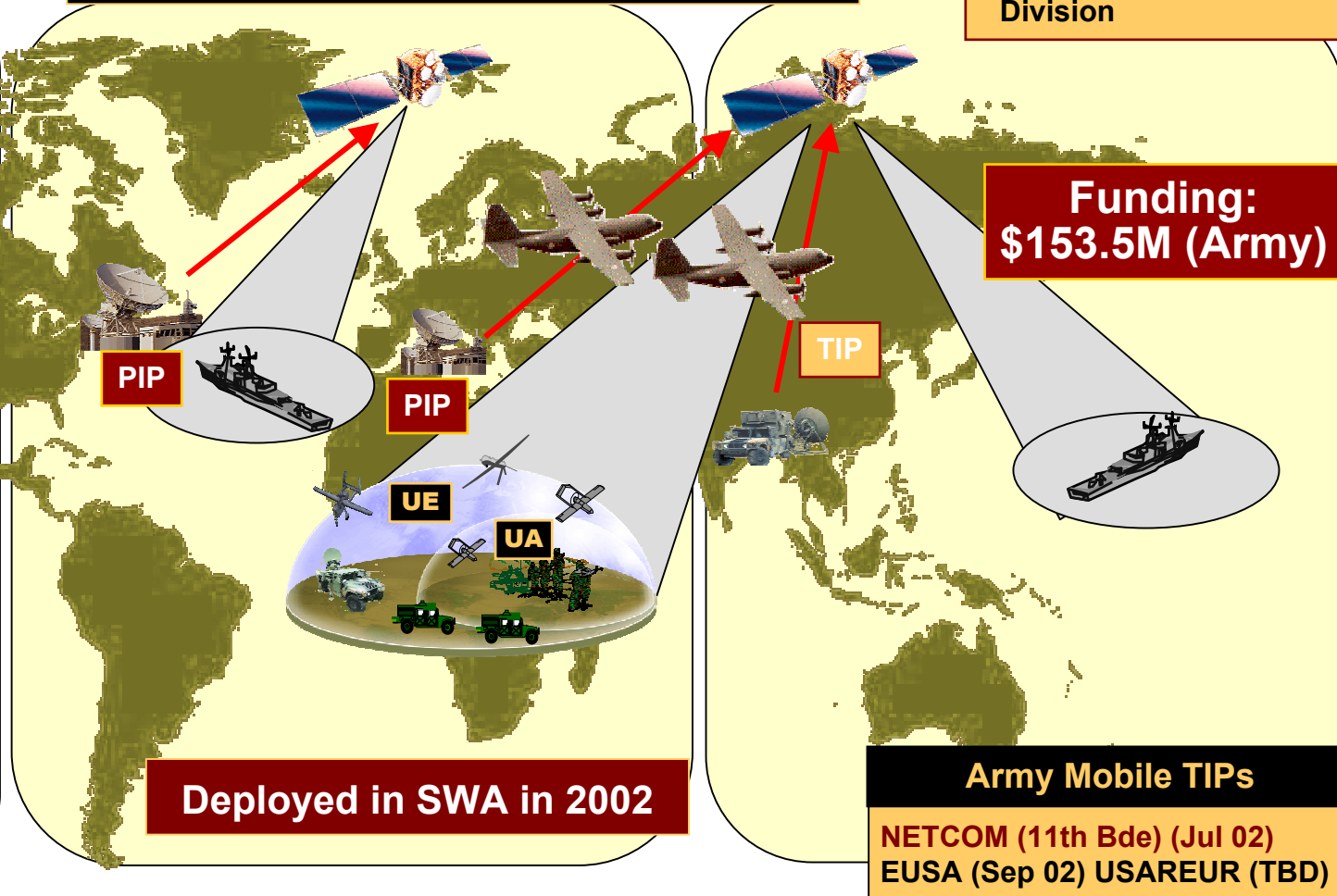
2003-2011

- 456 Light terminals
- 27x Rec Systems per Division

Funding:
\$153.5M (Army)

Bulk Information

ATO
Ops/Intel Updates
COP data
Imagery
Mapping
Video
News Services
Wx
Log data

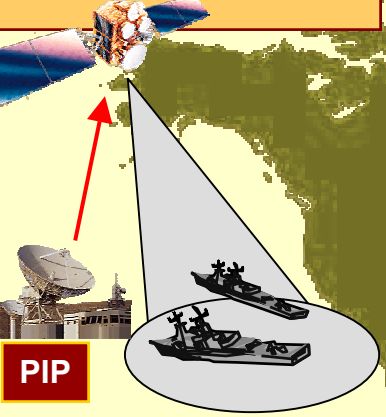


Enablers for Future Combat System and Objective Force

(CDS)

Today

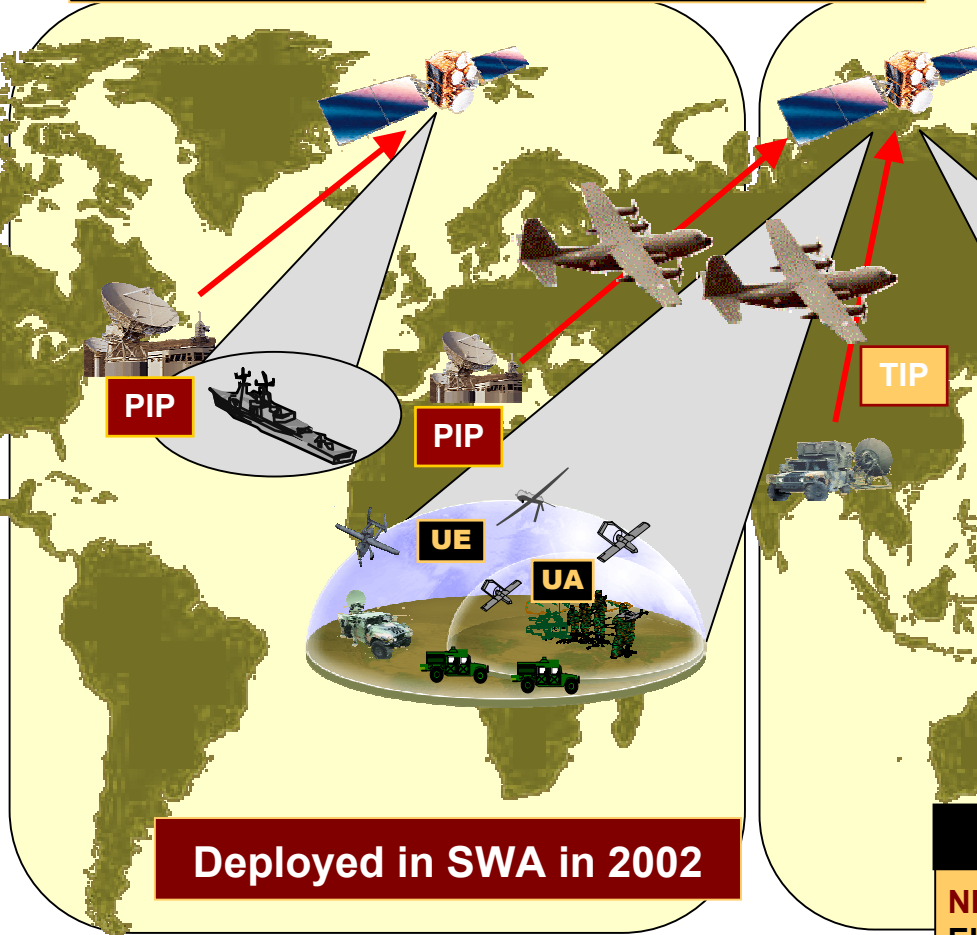
- **Worldwide Satellite Capability**
- **All Primary Injection Point (PIP) Operational**



Bulk Information

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Continuous High-Speed Data & Video to the Warfighter – GLOBALLY!

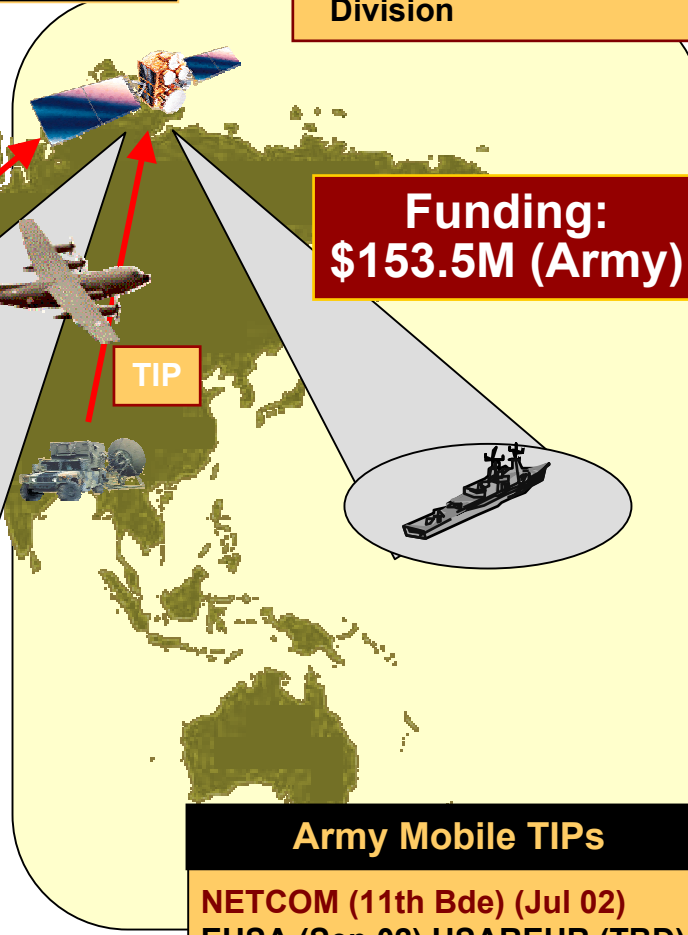


Deployed in SWA in 2002

2003-2011

- 456 Light terminals
- 27x Rec Systems per Division

Funding:
\$153.5M (Army)

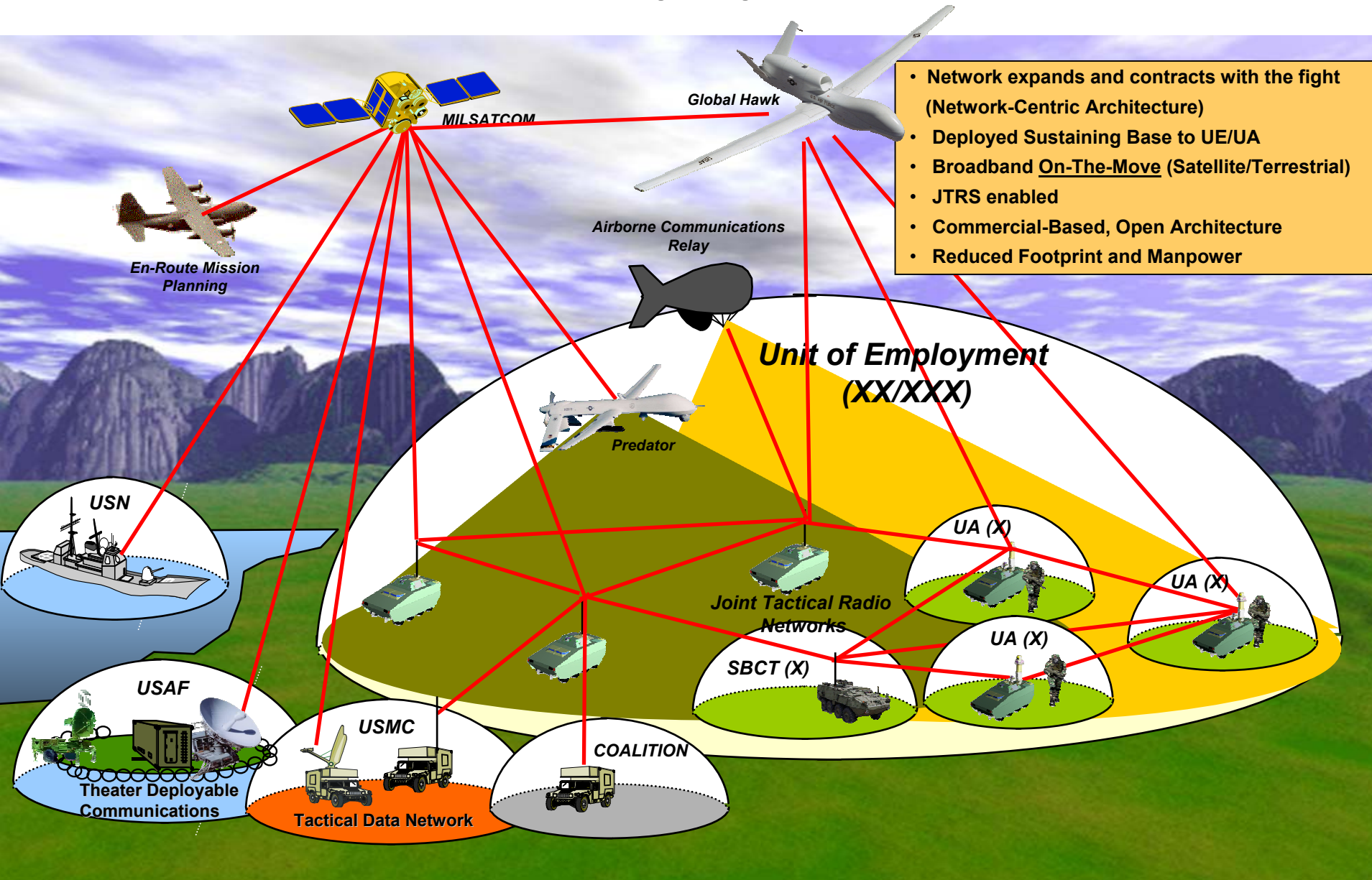


Army Mobile TIPs

NETCOM (11th Bde) (Jul 02)
EUSA (Sep 02) USAREUR (TBD)

Enablers for Future Combat System and Objective Force

Tactical



Information Customer

Industry, Services and Agencies must leverage the “Enterprise”



Personnel



Operations



Medical - Telemedicine



Logistics



Intelligence

Technology

Asymmetric Environment



- Understand the Environment
- Know the Customer
- Leverage - the Infostructure



Summary

“A little knowledge that acts is worth infinitely more than much knowledge that is idle.”

- - Khalil Gibran, The Prophet



We cannot be content with half-knowledge.